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A METHOD FOR PROVIDING DYNAMIC ADJUSTMENT OF FRAME ENCODING PARAMETERS IN A FRAME-BASED COMMUNICATIONS NETWORK

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ABSTRACT OF THE DISCLOSURE

A method for providing dynamic adjustment of frame encoding parameters to improve transmission performance for a transmitting frame being transmitted from a transmitting station to a

10   receiving station over a transmission medium on a frame-based communications network, the transmitting frame having a header segment and a payload segment, the header segment being transmitted using a fixed set of encoding parameters, the payload segment being transmitted using a variable set of payload

15   encoding parameters. The transmitting station sends the transmitting frame using one set of the variable set of payload encoding parameters at a time. The receiving station: (1) receives and decodes the header segment of each transmitting frame, (2) performs a decode process on the payload segment of

20   each transmitting frame, and either decodes the payload segment without errors wherein the frame is considered successfully received, or detects an error occurrence in the decode process, (3) measures and tracks the performance of the frame decode process, (4) determines network performance characteristics for

25   establishing desired performance based upon measuring and tracking the performance of the frame decode process, and (5) indicates to the transmitting station changes to the payload encoding parameters based upon determining network performance improvement characteristics. The transmitting station changes the

30   one set of the variable set of payload encoding parameters corresponding to the changes to the payload encoding parameters indicated to the transmitting station for encoding next future transmitting frames.

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